

Notice of Allowability

Application No.

10/674,700

Examiner

Lynette T. Umez-Eronini

Applicant(s)

YE ET AL.

Art Unit

1765

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6/8/06.
2. ☒ The allowed claim(s) is/are 1-10, 14-16, 20, 21, 23, 26 and 30-32.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

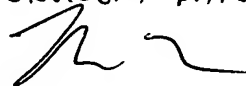
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

NADINE NORTON
SUPERVISORY PATENT EXAMINER 1765



REASON FOR ALLOWANCE

1. Claims 1-10, 14-16, 20, 21, 23, 26, and 29-32 are allowed.
2. The following is an examiner's statement of reasons for allowance:

As to claims 1-8 and 14-16, the prior art of record taken alone or in combination fails to suggest, teach or render obvious a method of fabricating an interconnect structure comprising: etching a second feature (contact hole) in a film stack using a patterned bi-layer mask of an organic film and an imaging film, wherein a portion of the organic film in a first trench structure is used as an etch mask to remove lithographic misalignment between the contact hole and the trench when the contact hole is etched, in combination with the rest of the limitations of the claims;

As to claims 9, 10, 20, 21, and 29, the prior art taken alone or in combination fails to suggest, teach or render obvious a method of fabricating an interconnect structure comprising: etching a second feature (trench) in a film stack using a patterned bi-layer mask of an organic film and an imaging film, wherein a portion of the organic film in a first contact hole is used as an etch mask when the trench is formed in the film stack, in combination with the rest of the limitations of the claims; and

As to claims 23, 26, and 30-32, the prior art taken alone or in combination fails to suggest, teach or render obvious a method of fabricating an interconnect structure comprising: etching a second feature in a film stack using a patterned bi-layer mask of an organic film and an imaging film, wherein a portion of the

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organic film in the first feature is used as an etch mask to remove lithographic misalignment between the first and the second feature when the second feature is etched, in combination with the rest of the limitations of the claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Examiner -
Lynette Omez Eronin

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